Save our Birds – Save our Forests

Every summer, forest-dwelling birds protect our National Forests in the Pacific Northwest by devouring millions of potentially damaging insects.

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Prepared by Pacific
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One of the earliest signs of spring has always been the countless flocks of migrating birds that pass through or come to stay for the summer in our gardens, fields, and forests. The National Forests alone in the Pacific Northwest are home to about 170 species of summer birds. Of these, nearly 60 percent are Neotropical migratory birds.

Neotropical migratory birds—ones like the **rufous hummingbird,** the **western tanager,** or any of the several **warblers** of our Northwest forests—spend only a third of their lives in the United States or Canada. The rest of the time, they live in tropical regions of Mexico, Central and South America, the Caribbean Islands, or areas en route between their summer and winter homes. Some of the nearly 200 species of Neotropical birds travel thousands of miles twice a year.

We see many of our resident Northwest birds come and go too, but their travels are shorter, sometimes only between low and high elevations in the same general area. The **dark-eyed junco, varied thrush, pine siskin,** and **golden-crowned kinglet,** for example, are often visible during the winter in the coastal valleys, where they may come to feed in our backyards or woodlots. In the summer, they may fly off to the higher, cooler forests. Many other resident birds, like the **chickadees, nuthatches,** and some **woodpeckers,** simply prefer to stay in the same general areas year-round.

But when summer finally arrives, the trees in our backyards and forests are alive with breeding birds. Their cheery calls and melodic serenades constantly remind us that this is the best time of year to appreciate these welcome songsters—not just for themselves alone, but for the incredible role they play in helping to keep our trees healthy.

Not all birds eat insects, but the majority do. And some species eat as many as 300 insects a day during the summer months. A breeding pair of **evening grosbeaks** can devour 25,000 to 50,000 caterpillars just in the period it takes them to raise a family!

Forest Service biologists in the Pacific Northwest have recently learned that 35 species of birds, including 24 Neotropical migrants, feed on the western spruce budworm and the Douglas-fir tussock moth, which are the two most destructive defoliating insects there.

Caterpillars, or larvae, of the western spruce budworm and the Douglas-fir tussock moth damage Douglas-firs and true firs by devouring some, or nearly all of their needles. This defoliation can weaken trees and make them vulnerable to attack by other insects or to diseases that will ultimately kill the trees. Although some trees must normally die to make room for the more robust ones, severe outbreaks of these insects can result in the death of additional millions of trees over hundreds of thousands of acres of forested land.

Spraying insecticides is somewhat effective in reducing damage caused by outbreaks of the budworm and tussock moth, but beneficial insects and spiders are killed along with the offending forest pests. This disruption, in turn, affects forest birds and animals that depend on all types of invertebrates for food.

B I R D S

—Photo by D.D. Bradshaw

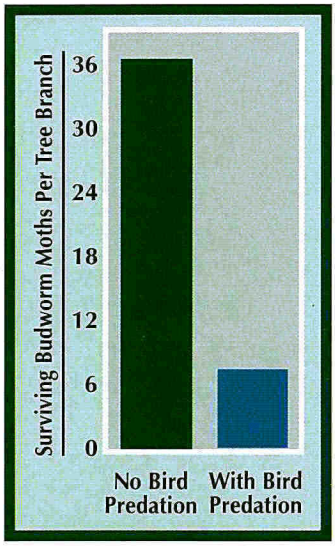
Top to bottom—Evening grosbeak, yellow-rumped warbler, mountain chickadee with budworm larva.

—Photo by L.R. Livingston

Above—Western spruce budworm larva.

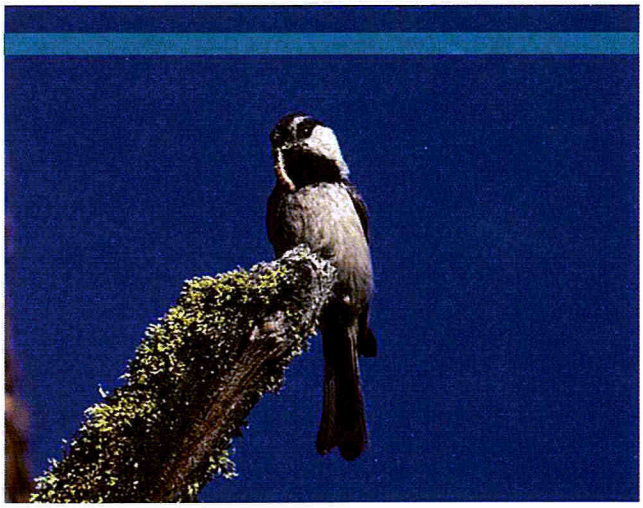
Below—Chipping sparrow.

Knowing that both Neotropical and resident birds feed on budworm and tussock moth larvae, Forest Service scientists planned an experiment to see just how effective these birds were. Specifically, how many budworms were birds eating off fir trees?



The scientists enclosed entire fir trees 30 feet tall in cages of PVC pipe and plastic netting to prevent birds from feeding on the caterpillars on those trees. The results showed SIX TIMES more budworms survived on the caged trees than on uncaged ones. In other words, birds ate five of every six caterpillars! The birds <u>were</u> making a difference!

—Photo by D.D. Bradshaw



—Photo by E.L. Bull

—Photo by D.D. Bradshaw

O R E S T S

Unfortunately, populations of some species of Neotropical migratory birds that spend their summers in the National Forests of Washington and Oregon have dwindled in the past 20 years. The ***chipping sparrow, Swainson's thrush, Hammond's*** and ***olive-sided flycatchers,*** and ***western wood pewee*** are just a few of the dozen species whose populations are declining.

Biologists believe such declines are the result of changes in habitat—either nesting or wintering, or both. Tree-harvesting and land-clearing can create isolated patches of forest where birds have less available food, fewer nesting sites, or less protection from natural enemies. Logging and clearing can also affect streamside, or riparian, habitats—always favorite nesting or foraging sites for many bird species. Road building and grazing near streams have also caused problems for birds.

To maintain healthy forests, responsible managers must realize that essential forest-dwelling birds need suitable nesting and foraging areas. They should plan for forest diversity with a variety of tree species of different ages, including standing snags and downed logs.

To stem declines in populations of Neotropical migratory birds, the National Fish and Wildlife Foundation, U.S. Forest Service, and other international, governmental and private agencies launched the ***Partners in Flight—Aves de las Americas*** Neotropical Migratory Bird Conservation Program in 1990. This international effort emphasizes habitat management and protection, professional training, and public education throughout North America, the Caribbean and Latin America, to solve the problems facing all birds. ***Partners in Flight*** promotes conservation when it should be done—before species and ecosystems become endangered.

For more information, contact: Partners in Flight, National Fish and Wildlife Foundation, 1120 Connecticut Avenue, NW, Suite 900, Washington, DC 20036.

Partial List of Birds of the Pacific Northwest That Are Predators of Two Major Forest Insects

Common Name	Scientific Name	Predator of: Western spruce budworm	Predator of: Douglas-fir tussock moth
Neotropical migrants:			
American robin	*Turdus migratorius*	*	
Black-headed grosbeak	*Pheucticus melanocephalus*		*
Cassin's finch	*Carpodacus cassinii*	*	*
Chipping sparrow	*Spizella passerina*	*	*
Flammulated owl	*Otus flammeolus*	*	
Hammond's flycatcher	*Empidonax hammondii*	*	
House wren	*Troglodytes aedon*	*	
Lincoln's sparrow	*Melospiza lincolnii*		*
MacGillivray's warbler	*Oporornis tolmiei*	*	*
Nashville warbler	*Vermivora ruficapilla*	*	*
Northern flicker	*Colaptes auratus*	*	
Ruby-crowned kinglet	*Regulus calendula*	*	*
Solitary vireo	*Vireo solitarius*		*
Swainson's thrush	*Catharus ustulatus*	*	
Townsend's warbler	*Dendroica townsendi*	*	
Vaux's swift	*Chaetura vauxi*	*	
Veery	*Catharus fuscescens*		*
Warbling vireo	*Vireo gilvus*	*	
Western tanager	*Piranga ludoviciana*	*	*
White-crowned sparrow	*Zonotrichia leucophrys*		*
Wilson's warbler	*Wilsonia pusilla*		*
Yellow-rumped warbler	*Dendroica coronata*	*	*
Yellow warbler	*Dendroica petechia*	*	
Brown-headed cowbird	*Molothrus ater*	*	
Year-round residents:			
Black-capped chickadee	*Parus atricapillus*	*	*
Bushtit	*Psaltriparus minimus*		*
Chestnut-backed chickadee	*Parus rufescens*		*
Dark-eyed junco	*Junco hyemalis*	*	*
Evening grosbeak	*Hesperiphona vespertina*	*	
Golden-crowned kinglet	*Regulus satrapa*	*	*
Mountain chickadee	*Parus gambeli*	*	*
Pileated woodpecker	*Dryocopus pileatus*	*	
Pine siskin	*Carduelis pinus*	*	*
Red-breasted nuthatch	*Sitta canadensis*	*	*
White-headed woodpecker	*Picoides albolarvatus*	*	

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Cover inset photo: Western tanager. Photo by D.D. Bradshaw

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